

Section A

Southeast Colorado River Basin

Utah State Water Plan

ACRONYMS, ABBREVIATIONS AND DEFINITIONS

A.1 ACRONYMS AND ABBREVIATIONS

Many names, titles, programs, organizations, legislative acts, measurements and activities are abbreviated to reduce the volume of words and to simplify communications. A few of the abbreviations and acronyms used in the Southeast Colorado River Basin Plan are listed below.

A.1.1 State and Local Agencies and Organizations

CEM	Division of Comprehensive Emergency Management
DDW	Division of Drinking Water
DWQ	Division of Water Quality
DWR	Division of Wildlife Resources
DWRe	Division of Water Resources
DWRi	Division of Water Rights
MCD	Multi-County Planning District
SDCO	State Disaster Coordinating Office
SHMT	State Hazard Mitigation Team
UGS	Utah Geological Survey
UWQB	Utah Water Quality Board (WQB)

A.1.2 Federal Agencies

BIA	Bureau of Indian Affairs
BLM	Bureau of Land Management
BR	Bureau of Reclamation
COE	Corps of Engineers
EPA	Environmental Protection Agency
FSA	Farm Service Agency
FEMA	Federal Emergency Management Agency
FWS	Fish and Wildlife Service
NRCS	Natural Resources Conservation Service
USDA	United States Department of Agriculture
USGS	Geological Survey

A.1.3 Programs/Acts

CERCLA	Comprehensive Environmental Response and Comprehensive Liability Act
CFR	Code of Federal Regulations
CRP	Conservation Reserve Program
CWA	Clean Water Act

DWSPR	Drinking Water Source Protection Rule
ESA	Endangered Species Act
NAWQA	National Water Quality Assessment
NFIP	National Flood Insurance Program
NPDES	National Pollution Discharge Elimination System
RPDWS	Rules for Public Drinking Water Systems
SCORP	State Comprehensive Outdoor Recreation Plan
SDWA	Safe Drinking Water Act
UPDES	Utah Pollution Discharge Elimination System
USDWA	Utah Safe Drinking Water Act
UWPCA	Utah Water Pollution Control Act
UWQA	Utah Water Quality Act

A.1.4 Measurements

Ac-Ft	Acre-feet
CFS(cfs)	Cubic feet per second
gpcd	Gallons per capita day
gpm	Gallons per minute
MCL	Maximum contaminant level
mgd	Million gallons per day
mg/L	Milligrams per liter
μmhos/cm	Micromhos per centimeter
μS/cm	Microsiemens per centimeter
Mw	Megawatt
PMP	Probable maximum precipitation
SMCL	Secondary maximum contaminant level
TDS	Total dissolved solids
TMDL	Total Maximum Daily Load

A.1.5 Miscellaneous

BMP	Best Management Practices
EAP	Emergency Action Plan
EOP	Emergency Operations Plan
FIRE	Finance, insurance and real estate
M&I	Municipal and industrial
OHV	Off-highway vehicle
RC&D	Resource Conservation and Development
RMP	Resource Management Plan
TCPU	Transportation, communications and public utilities
WWTP	Wastewater treatment plant

A.2 WATER RESOURCES DEFINITIONS

Many terms used in the water business have different meanings depending on the source, and are sometimes confusing. Some words are used interchangeably. A few commonly used water terms are defined for use in this document.

A.2.1 Water Use Terms

Water is often said to be "used" when it is diverted, withdrawn, depleted, or consumed. But it is also "used" in place for such things as fish and wildlife habitat, recreation and hydropower production. These are instream uses.

Commercial Use - Uses normally associated with small business operations which may include drinking water, food preparation, personal sanitation, facility cleaning and maintenance and irrigation of landscapes.

Consumptive Use - Consumption of water for residential, commercial, institutional, industrial, agricultural, power generation and recreational purposes. Naturally occurring vegetation and wildlife also consumptively use water. Water consumed is not available for other uses within the system.

Cropland Irrigation Use - Water used for irrigation of cropland. Residential lawn and garden uses are not included.

Depletion - Net loss of water through consumption, export and other uses to a given area, river system or basin. The terms consumptive use and depletion, often used interchangeably, are not the same.

Diversion/Withdrawal - Water diverted from supply sources such as streams, lakes, reservoirs, springs or wells for a variety of uses including cropland irrigation and residential, commercial, institutional, and industrial purposes. The terms diversion and withdrawal are often used interchangeably.

Industrial Use - Use associated with the manufacturing or assembly of products which may include the same basic uses as commercial business. The volume of water used by industrial businesses, however, can be considerably greater than water use by commercial businesses.

Institutional Use - Uses normally associated with general operation of various public agencies and institutions including drinking water; personal sanitation; facility cleaning and maintenance; and irrigation of parks, cemeteries, playgrounds, recreational areas and other facilities.

Municipal Use - This term is commonly used to include residential, commercial and institutional. It is sometimes used interchangeably with the term "public water use."

Municipal and Industrial (M&I) Use - This term is used to include residential, commercial, institutional and industrial uses.

Private or Domestic Use - Includes water from private wells or springs for use in individual homes, usually in rural areas not accessible to public water supply systems.

Residential Use - Water used for residential cooking; drinking; washing clothes; miscellaneous cleaning; personal grooming and sanitation; irrigation of lawns, gardens, and landscapes; and washing automobiles, driveways, and other outside facilities.

A.2.2 Water Supply Terms

Water is supplied by a variety of systems for many uses. Most water supply systems are owned by an irrigation company or a municipality, but in some cases the owner/operator is a private company, or is a state or federal agency. Thus, a "public" water supply may be either publicly or privately owned. Also, systems may supply treated or untreated water.

Culinary Water Supply - Water meeting all applicable safe drinking water requirements for residential, commercial and institutional uses. This is also known as potable water.

Municipal and Industrial (M&I) Water Supply - A supply that provides culinary/secondary water for residential, commercial, institutional and industrial uses.

Public Water Supply - Includes culinary water supplied by either privately or publicly owned community systems which serve at least 15 service connections or 25 individuals at least 60 days per year. Water from public supplies may be used for residential, commercial, institutional, and industrial purposes, including irrigation of publicly and privately owned open areas.

Secondary / Non-Potable Water Supply - Pressurized or open ditch water supplies of untreated water for irrigation of privately or publicly owned lawns, gardens, parks, cemeteries, golf courses and other open areas. These are sometimes called "dual" water systems.

A.2.3 Groundwater Terms

Aquifer - A saturated body of rock or soil which will yield water to wells or springs

Groundwater - Water which is contained in the saturated portions of soil or rock beneath the land surface. Excludes soil moisture which refers to water held by capillary action in the upper unsaturated zones of soil or rock.

Mining - Long-term groundwater withdrawal in excess of recharge.

Phreatophyte - A plant species which extends its roots to the saturated zone under shallow water table conditions and transpires groundwater. These plants are high water users and include such species as tamarisk, greasewood, willows and cattails.

Recharge - Water added to the aquifer/groundwater reservoir or the process of adding water to the aquifer/groundwater reservoir.

Recoverable Reserves - The amount of water which could be reasonably recovered from the groundwater reservoir with existing technology.

Safe Yield - The amount of water which can be withdrawn from an aquifer on a long-term basis without serious quality, environmental or social consequences, or seriously depleting the reservoir.

Total Water in Storage - A volume of water derived by estimating the total volume of saturated aquifer and multiplying by the porosity (intergranular space containing water).

A.2.4 Other Water Terms

Some water terms are peculiar to the water industry.

Call - The ability to order a quantity or flow of water at a given time and for a given period of time.

Carriage Water - Water needed for hydraulic operation of a delivery system.

Drinking Water - Water used as a potable/culinary supply.

Export Water - A water diverted from a river system or basin other than by the natural outflow of streams, rivers and groundwater. The means by which is exported is sometimes called a transbasin diversion.

Instream Flow - Water flow maintained in a stream for the preservation and propagation of wildlife or aquatic habitat and for aesthetic values.

Non-Point Source Pollution - Pollution generated and discharged over a wide land area, not from one specific location. These are forms of diffuse pollution caused by such things as sediment and nutrients carried to lakes and streams by surface runoff.

Point Source Pollution - Pollutants discharged from any identifiable point, including pipes, ditches, channels and containers.

Potable/Culinary - Water suitable for drinking or cooking purposes. The terms culinary and potable are often used interchangeably.

Reuse - The reclamation of water diverted from a municipal or industrial wastewater conveyance system.

Riparian Areas - Land areas adjacent to rivers, streams, springs, bogs, lakes and ponds. They are ecosystems composed of plant and animal species highly dependent on water.

Water Quality - Water quality data was taken from reports and other material prepared by various agencies over different periods of time. For this reason, water quality measurements were made in different units. It has been decided to report the data in milligrams per liter as this terminology is more familiar to the lay reader.

The chemical concentration of dissolved solids is given in milligrams per liter (mg/L), a unit expressing the weight per unit volume. A mg/L is equivalent to parts per million (ppm). Specific conductance is often measured in lieu of concentration of dissolved solids as it is more economical and can be done in the field. Specific conductance is a measure of the ability of the water to conduct electricity, which is a function of the dissolved solids. Specific conductance is given in micromhos per centimeter ($\mu\text{mhos/cm}$). Specific conductance is also reported in microsiemens per centimeter ($\mu\text{S/cm}$). A $\mu\text{mho/cm}$ is equal to a microsiemens per centimeter. For concentrations of 100 to 5,000 $\mu\text{mhos/cm}$, specific conductance can be converted to dissolved solids by the equation: $\text{mg/L} = 0.59 \text{ multiplied by specific conductance } (\mu\text{mhos/cm})$. In all cases, the lower the number, the better the water quality.

Watershed - The total area of land above a given point on a waterway that contributes runoff water to the flow at that point; a drainage basin or a major subdivision of a drainage basin.

Water Yield - The runoff from precipitation that reaches water courses and therefore may be available for human use.

Wetlands - Areas where vegetation is associated with open water and wet and/or high water table conditions.

Wet/Open Water Areas - Includes lakes, ponds, reservoirs, streams, mudflats and other wet areas.

A.3 OTHER DEFINITIONS

Soils Descriptions - Following are four terms used to describe soil horizons or conditions.

The **Argillic Horizon** is a horizon below the surface layer in which silicate clays have accumulated.

Aquic Conditions are where soils have a continuous or sufficient time period of water saturation for reduced pore conditions or lack of oxygen.

A **Calcic Horizon** in which secondary calcium carbonates or other carbonates have accumulated.

Mollic Epipedon is a thick dark mineral surface layer having more than 50 percent base saturation, and an organic carbon content of 0.6 percent or more.